

## ABSTRACT

The present invention relates to prognostic methods which are useful in medicine, particularly cancer chemotherapy. The object of the invention to provide a method for assessing Dihydropyrimidine dehydrogenase (*DPD*) expression levels in

5 tissues and prognosticate the probable resistance of a patient's tumor to treatment with 5-FU based therapies by examination of the amount of *DPD* mRNA in a patient's tumor cells and comparing it to a predetermined threshold expression level. More specifically, the invention provides to oligonucleotide primer pairs *DPD3A* and *DPD3B* and methods comprising their use for detecting levels of

10 Dihydropyrimidine dehydrogenase (*DPD*) mRNA.